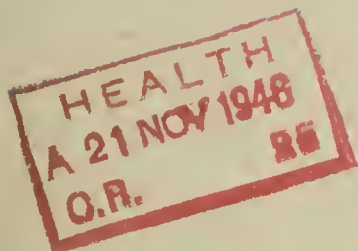


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O F T H E

M E D I C A L O F F I C E R O F H E A L T H

F O R T H E

Y E A R 1945

WARMLEY RURAL DISTRICT COUNCIL.

Composition of the District:-

Parishes of BITTON.
HANHAM ABBOTS.
MANGOTSFIELD RURAL.
OLDLAND and
SISTON.

Chairman:- Mr. A. Williams.

Vice-Chairman:-
Mr. S.H. Ford.

Members:- Mr. C.C. Atchison.
Mr. F.L. Drew.
Mr. G.G. Fuge.
Mr. Wm. Hale.
Mr. A.H. Harris.
Mr. J.Y. Ivens.
Mr. A. Lear.
Mr. S.J. Perrett.
Mr. J.W. Reed.
Mr. A.G. Sheere.
Mr. J.T. Tanner.
Mr. H. Williams.

Clerk of the Council:-

Sir Seymour Williams, K.B.E. (Died 24.2.45).
C.W.G. Hitchcock (Appointed 1.8.45).

Public Health Staff:-

Medical Officer of Health:-

James Menzies Cormack, M.B., Ch.B., D.P.H..

Surveyor and Sanitary Inspector:-

Captain W.H. Knee, M.I.M. & C.E., A.R.San.I..
(Retired 22.12.45).

Serial Number of Report - 36.

STATISTICS.

(a) General Statistics.

| | |
|--|--------------|
| Area of District | 8,843 acres. |
| Population: Registrar-General's estimate mid - 1945. | 9,072. |
| Number of inhabited houses per Rate Books. | 2,743. |
| Estimated number of Void Houses. | - |
| Rateable Value. | £38,181. |
| Sum represented by penny rate. | £151. |

(b) Extracts from Vital Statistics.

| | | | | | |
|--------------|---------------|------------------|------------------|-----------------------|--|
| Live Births. | Legitimate. | <u>M.</u> 70. | <u>F.</u> 50. | <u>Total.</u> 120. | Birth Rate per 1,000 estimated resident population mid-1945. 13.7 |
| | Illegitimate. | 1. | 3. | 4. | |
| Stillbirths. | Legitimate. | 3. | 3. | 6 | Rate per 1,000 total (live and stillbirths) 46. |
| | Illegitimate. | - | - | - | |
| Deaths. | | 66. | 61. | 127. | Death Rate per 1,000 estimated average popul- ation. 14. |

| | |
|--|------|
| Deaths from Puerperal Causes. | NIL. |
| Deaths of Infants (under 1 year). | 2. |
| Deaths from Cancer (all ages). | 18. |
| Deaths from Measles (all ages). | NIL. |
| Deaths from Whooping Cough (all ages). | NIL. |
| Deaths from Diarrhoea (under 2 years). | NIL. |

| Cause. | Under 1 yr. | 1 - | 5 - | 15 - | 25 - | 45 - | 65 - | 75 - | Total. |
|--|----------------|-----|-----|------|------|------|------|------|--------|
| 1. Typhoid and Paratyphoid Fevers. | | | | | | | | | - |
| 2. Cerebro-spinal fever. | | | | | | | | | - |
| 3. Scarlet Fever. | | | | | | | | | - |
| 4. Whooping Cough. | | | | | | | | | - |
| 5. Diphtheria. | | | | | | | | | - |
| 6. Tuberculosis of Respiratory System. | | | 1 | 3 | 3 | | | | 7 |
| 7. Other forms of Tuberculosis. | | | | 1 | 1 | | | | 2 |
| 8. Syphilitic Disease. | | | | 1 | | | | | 1 |
| 9. Influenza. | | | | | | 2 | | | 2 |
| 10. Measles | | | | | | | | | - |
| 11. Acute poliomyelitis & polioencephalitis. | | | | | | | | | - |
| 12. Acute infectious encephalitis. | | | | | | | | | - |
| 13M Cancer of buccal cavity & oesophagus (males only) | | | | | | | | | - |
| 13F Cancer of uterus. | | | | | | 1 | | | 1 |
| 14. Cancer of stomach and duodenum. | | | | | | 1 | | 4 | 5 |
| 15. Cancer of breast. | | | | | | | 1 | | 1 |
| 16. Cancer of all other sites. | | | | | | 1 | 3 | 7 | 11 |
| 17. Diabetes. | | | | | | | | | - |
| 18. Intra-cranial vascular lesions. | | | | | | 2 | 4 | 9 | 15 |
| 19. Heart Disease. | | | | | | 4 | 13 | 22 | 39 |
| 20. Other diseases of the circulatory system. | | | | | | 1 | | 4 | 5 |
| 21. Bronchitis. | | | | | | 2 | 2 | | 4 |
| 22. Pneumonia. | | | | | | | 1 | 2 | 3 |
| 23. Other respiratory diseases. | | | | | | | 1 | | 1 |
| 24. Ulceration of the stomach or duodenum. | | | | | | 1 | | | 1 |
| 25. Diarrhoea (under 2 years of age). | | | | | | | | | - |
| 26. Appendicitis. | | | 1 | | | | 1 | | 2 |
| 27. Other digestive diseases. | | | | | 1 | | 1 | | 2 |
| 28. Nephritis. | | | | | 1 | | 2 | 2 | 5 |
| 29. Puerperal and post-abortive sepsis. | | | | | | | | | - |
| 30. Other maternal causes. | | | | | 1 | | | | 1 |
| 31. Premature birth. | 1 | | | | | | | | 1 |
| 32. Congenital malformations, birth injury, infantile disease. | 1 | | | | | | | | 1 |
| 33. Suicide. | | | | | | | | | - |
| 34. Road Traffic Accidents. | | | | 1 | 1 | | 1 | | 3 |
| 35. Other violent causes. | | | 1 | 1 | 2 | 1 | 2 | 2 | 9 |
| 36. All other causes. | | 1 | | | 1 | 1 | | 2 | 5 |



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TABLE OF INCIDENCE OF INFECTIOUS DISEASES FOR EACH PARISH.

| <u>Disease.</u> | <u>Bitton.</u> | <u>Hanham Abbots.</u> | <u>Mangotsfield Rural.</u> | <u>Oldland.</u> | <u>Siston.</u> | <u>Total.</u> |
|------------------------|----------------|-----------------------|----------------------------|-----------------|----------------|---------------|
| Scarlet Fever. | 1 | 1 | 1 | 2 | 1 | 6 |
| Diphtheria. | - | - | 1 | - | 9 | 10 |
| Measles. | 6 | 20 | 1 | 5 | 3 | 35 |
| Whooping Cough. | 6 | 2 | - | - | - | 8 |
| Puerperal Pyrexia. | - | - | - | - | - | - |
| Ophthalmia Neonatorum. | - | - | - | 1 | - | 1 |
| Dysentery. | 3 | - | 1 | - | - | 4 |
| Erysipelas. | - | 1 | - | - | - | 1 |
| | 16 | 24 | 4 | 8 | 13 | 65 |

TABLE SHOWING INCIDENCE OF INFECTIOUS DISEASES IN AGE GROUPS.

| Disease. | Under 1 yr. | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-15 | 15-20 | 20-35 | 35-45 | 45-65 | 65 & over | Total Cases | Cases Adm. Hospital. | Total Deaths |
|---|----------------|-----|-----|-----|-----|------|-------|-------|-------|-------|-------|--------------|----------------|-------------------------|-----------------|
| Smallpox. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Scarlet Fever. | - | - | - | - | 1 | 4 | - | - | 1 | - | - | - | 6 | 1 | - |
| Diphtheria. | - | - | 1 | 1 | - | - | 1 | 3 | 2 | 1 | - | - | 10 | 10 | - |
| Measles. | 2 | 3 | 3 | 7 | 3 | 13 | 2 | 2 | - | - | - | - | 35 | - | - |
| Whooping Cough. | 1 | 1 | - | 1 | 2 | 3 | - | - | - | - | - | - | 8 | - | - |
| Enteric Fever including Paratyphoid. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Puerperal Pyrexia & Fever. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pneumonia. | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Erysipelas. | - | - | - | - | - | - | - | - | 1 | - | - | - | 1 | 1 | - |
| Ophthalmia Neonatorum. | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | - |
| Dysentery. | - | - | 1 | 1 | - | - | 1 | - | 1 | - | - | - | 4 | 1 | - |
| | 4 | 4 | 5 | 10 | 7 | 20 | 4 | 5 | 5 | 1 | - | - | 65 | 14 | - |

TABLES SHOWING NEW CASES AND DEATHS (TUBERCULOSIS) IN AGE GROUPS.

| | <u>NEW CASES.</u> | | | | <u>DEATHS.</u> | | | |
|--------------------|---------------------|----|-------------------------|----|---------------------|----|-------------------------|----|
| | <u>Respiratory.</u> | | <u>Non-Respiratory.</u> | | <u>Respiratory.</u> | | <u>Non-Respiratory.</u> | |
| | M. | F. | M. | F. | M. | F. | M. | F. |
| Under 1 year. | - | - | - | 1 | - | - | - | - |
| 1 - 5 years. | - | - | - | - | - | - | - | - |
| 5 - 15 years. | - | 2 | - | 1 | 1 | - | - | - |
| 15 - 25 years. | - | 2 | - | - | - | - | - | - |
| 25 - 35 years. | 3 | - | - | - | 1 | 2 | 1 | - |
| 35 - 45 years. | 1 | - | - | - | - | - | - | - |
| 45 - 55 years. | - | - | - | - | 1 | 1 | - | 1 |
| 55 - 65 years. | - | - | - | - | 1 | - | - | - |
| 65 years and over. | - | - | - | - | - | - | - | - |
| Totals. | 4 | 4 | - | 2 | 4 | 3 | 1 | 1 |

SCABIES ORDER, 1941.

Since the inception of this Order co-operative arrangements have been established with Bristol City whereby verminous persons are treated at the Bristol Clinics. Appointments for attendance at the Clinics are made at this Council Office.

These arrangements have been found satisfactory.

NUISANCES.

Number of nuisances abated by informal methods. 12.

Number of nuisances which have been dealt with
by Statutory Notices. 1.

MEAT & FOOD INSPECTION.

Animals killed at Ministry of Food Slaughterhouse:-

38,323 Calves.
191 Sheep.

38,514.

Condemnations during the year:-

| | | | <u>Weight.</u> |
|-----|--------|---------------|-------------------|
| 151 | Calves | Carcases. | 7,339 lbs. |
| 86 | " | Plucks. | 394 " |
| 5 | " | Heads. | 20 " |
| 1 | " | Shoulder. | 8 " |
| 3 | " | Forequarters. | <u>38</u> " |
| | | Total. | <u>7,799 lbs.</u> |

BRANCH SEWERS.

Nothing further was done in connection with the Branch Sewers in the area.

WATER SUPPLIES.

Generally throughout the district water is supplied by the West Gloucestershire Water Company. This is a private Company which operates throughout South Gloucestershire. The water supply from the Company has been satisfactory in both quantity and quality and copies of chemical and bacteriological analyses are appended.

No action has been necessary in respect of any form of contamination. Very good relations are established with the Company and upon any matters of doubt or difficulty consultations take place between the Secretary to the Company and the Medical Officer of Health.

Details follow giving the proportion of dwelling houses supplied direct or by stand posts.

Domestic.
Return of Supplies by Parishes for the year 1944-1945.

| <u>PARISH.</u> | <u>31st Dec. 1943.</u> | <u>31st Dec. 1944.</u> | <u>31st Dec. 1945.</u> | <u>PARISH.</u> | <u>31st Dec. 1943.</u> | <u>31st Dec. 1944.</u> | <u>31st Dec. 1945.</u> |
|----------------------|----------------------------|----------------------------|----------------------------|--|----------------------------|----------------------------|----------------------------|
| County of Gloucester | | | | Tetbury R.D. | | | |
| Sodbury R.D. | | | | Leighterton | | | |
| Acton Turville | 68 | 68 | 68 | Didmarton | | | |
| Alderley | | | | Long Newton | | | |
| Chipping Sodbury | 295 | 297 | 297 | Shipton Moyne | | | |
| Dodington | 26 | 27 | 31 | Tetbury Upton | | | |
| Doynton | 55 | 56 | 59 | Weston Birt | | | |
| Dyrham & Hinton | | | | | | | |
| Filton | 2,981 | 2,993 | 2,995 | Mangotsfield U.D. | | | |
| Frampton Cotterell | 534 | 539 | 547 | Kingswood U.D. | | | |
| Great Badminton | 97 | 97 | 97 | | | | |
| Hawkesbury | 41 | 41 | 41 | Warmley R.D. | | | |
| Horton | 2 | 2 | 2 | Bitton | | | |
| Iron Acton | 138 | 139 | 143 | Hanham Abbots | | | |
| Little Sodbury | 4 | 4 | 6 | Mangotsfield Rural | | | |
| Marshfield | 231 | 238 | 247 | Oldland | | | |
| Old Sodbury | 262 | 264 | 264 | Siston | | | |
| Pucklechurch | 166 | 167 | 167 | | | | |
| Stoke Gifford | 234 | 230 | 253 | | | | |
| Tormarton | 45 | 45 | 46 | | | | |
| Westerleigh | 381 | 380 | 384 | | | | |
| West Littleton | | | | | | | |
| Wick & Abson | 186 | 186 | 189 | | | | |
| Wickwar | 185 | 185 | 184 | | | | |
| Winterbourne | 961 | 967 | 967 | | | | |
| Yate | 368 | 376 | 378 | | | | |
| | | | | THIS RETURN REPRESENTS HOUSES ACTUALLY OCCUPIED AT THE DATE STATED. | | | |

WATER SUPPLIES.

| <u>Parish.</u> | <u>Direct to Houses.</u> | <u>Stand Pipes.</u> | <u>No. of Houses.</u> | <u>Total Houses.</u> |
|---------------------|------------------------------|---------------------|-----------------------|--------------------------|
| Bitton. | 657 | 17 | 95 | 752 |
| Hanham Abbots. | 370 | 12 | 53 | 423 |
| Mangotsfield Rural. | 166 | 3 | 3 | 169 |
| Oldland. | 473 | 18 | 70 | 543 |
| Siston. | 380 | 18 | 39 | 429 |

Number of Houses on Rate Books - 2,824.

These figures are subject to correction and will be
checked when the Rural Housing Survey is completed.

COPY.

WEST GLOUCESTERSHIRE WATER COMPANY.

KINGSWOOD. BRISTOL.

17/5/46.

Analysis.

The places and frequency of sampling are the same as before, as set out in my letter of 24th August 1944. Analysis of output water from Shipton Moyne, Frampton Cotterell and California are attached.

The following is a summary of output water samples taken in 1944 and 1945: these figures relate to the whole of the Company's area, not to Kingswood U.D. only.

| <u>Sample.</u> | <u>1944</u> | | <u>1945</u> | |
|-----------------|---|--|---|--|
| | <u>Number of samples taken.</u> | <u>Number containing B.Coli.</u> | <u>Number of samples taken.</u> | <u>Number containing B.Coli.</u> |
| Shipton Moyne. | 26 | - | 25 | - |
| Frampton. | 24 | - | 36 | 1 |
| California. | 3 | - | 4 | - |
| Bulk supply. | - | - | 1 | 1 |
| Reservoirs. | 27 | 5 | 24 | 1 |
| Consumer's taps | - | - | 25 | 8 |
| | <u>80</u> | <u>5</u> | <u>115</u> | <u>11</u> |

* all in one area.

Rainfall recorded at Hopewell Hill,
Kingswood.

| | <u>1944</u> | <u>1945</u> | <u>37 year average.</u> |
|------------|--------------|--------------|-------------------------|
| January | 2.16 | 1.87 | 3.10 |
| February | 0.73 | 2.96 | 2.25 |
| March | 0.34 | 1.06 | 2.11 |
| April | 2.33 | 0.96 | 2.02 |
| May | 0.90 | 2.56 | 2.17 |
| June | 2.68 | 3.53 | 2.72 |
| July | 2.28 | 1.81 | 2.92 |
| August | 3.42 | 2.47 | 2.98 |
| September | 3.55 | 2.45 | 2.47 |
| October | 4.56 | 4.20 | 3.55 |
| November | 5.23 | 0.34 | 3.07 |
| December | <u>2.10</u> | <u>4.75</u> | <u>3.57</u> |
| TOTAL. | <u>30.28</u> | <u>28.96</u> | <u>32.48</u> |
| Rain days. | <u>167</u> | <u>161</u> | <u>165.5</u> |

In 1944 there were 3 droughts of 10 days or more, but weather was not exceptional.

In 1945 there were 5 droughts of 10 days or more: November was the driest in 39 years and December the wettest since 1934.

Annual rainfall was below normal from September 1943 to February 1945, above normal from March to September 1945 and below normal from October to the end of 1945. The calendar years 1941, 2, 3, 4 and 1945 have all been below average.

1. The first part of the paper is devoted to a general discussion of the problem.

2. The second part of the paper is devoted to a detailed discussion of the problem.

3. The third part of the paper is devoted to a detailed discussion of the problem.

4. The fourth part of the paper is devoted to a detailed discussion of the problem.

5. The fifth part of the paper is devoted to a detailed discussion of the problem.

6. The sixth part of the paper is devoted to a detailed discussion of the problem.

7. The seventh part of the paper is devoted to a detailed discussion of the problem.

8. The eighth part of the paper is devoted to a detailed discussion of the problem.

9. The ninth part of the paper is devoted to a detailed discussion of the problem.

10. The tenth part of the paper is devoted to a detailed discussion of the problem.

11. The eleventh part of the paper is devoted to a detailed discussion of the problem.

12. The twelfth part of the paper is devoted to a detailed discussion of the problem.

13. The thirteenth part of the paper is devoted to a detailed discussion of the problem.

14. The fourteenth part of the paper is devoted to a detailed discussion of the problem.

15. The fifteenth part of the paper is devoted to a detailed discussion of the problem.

16. The sixteenth part of the paper is devoted to a detailed discussion of the problem.

17. The seventeenth part of the paper is devoted to a detailed discussion of the problem.

COPY.

THE WEST GLOUCESTERSHIRE WATER COMPANY.
KINGSWOOD. BRISTOL.

S.S.80

Analysis of sample of Shipton Moyne chlorinated water taken on
14th January 1946.

Appearance Clear and bright.
Colour. Normal. Odour. Nil.
Reaction, pH On the alkaline side Acidity as CO₂ 0.6
of neutrality: 7.8.
Electric conductivity at 20°C 610 Alkalinity as Ca CO₃ 24.5

Results expressed in parts per 100,000.

| Ca. | Mg. | Na. | CO ₃ | SO ₄ | Cl. | NO ₃ | SiO ₂ | Probable Combinations. | |
|--|-----|-----|-----------------|-----------------|-----|-----------------|------------------|------------------------|------|
| 7.8 | 0.9 | | 14.7 | 4.6 | 4.6 | A | 1.0 | | |
| 7.8 | | | 11.7 | | | | | Calcium Carbonate | 19.5 |
| | 0.9 | | 2.2 | | | | | Magnesium Carbonate | 3.1 |
| | | 0.6 | 0.8 | | | | | Sodium Carbonate | 1.4 |
| | | 2.2 | | 4.6 | | | | Sodium Sulphate | 6.8 |
| | | 3.0 | | | 4.6 | | | Sodium Chloride | 7.6 |
| | | | | | | | 1.0 | Silica | 1.0 |
| Difference. | | | | | | | | | 1.1 |
| Total solid constituents dried at 180°C. | | | | | | | | | 40.5 |

Hardness-Total 23.0 Temporary 22.5 Permanent 0.5
Free Ammonia 0.0100 = Ammoniacal Nitrogen 0.0080
Albuminoid Ammonia 0.0000 = Albuminoid Nitrogen 0.0000
Oxygen absorbed in 4 hours at 80°F 0.0000
Nitrogen in Nitrates 0.00 Nitrogen in nitrites Less than 0.001

Metals Iron: 0.015 Other metals absent.

NOTE: To convert the above parts per 100,000
into grains per gallon multiply by 0.7

'Free chlorine reaction' 0.2 part per million.

BACTERIOLOGICAL RESULTS.

No. of Colonies per c.c. or ml.

On Agar at 37°C in : 1 day
2 days

On Agar at 20°C in : 3 days

Presumptive Coliform Reaction:

Bact. Coli

Cl. welchii

| | | |
|---------|---|----------------|
| | 1 | |
| | 2 | |
| | 1 | |
| Present | - | Absent 100 c.c |
| Present | - | Absent 100 c.c |
| Present | - | Absent 100 c.c |

Signed: Gordon Miles B.Sc., F.R.I.C.

THE WEST GLOUCESTERSHIRE WATER COMPANY.

S.S. 80.

KINGSWOOD, BRISTOL.

Analysis of sample of Frampton Cotterell Pumping Station output
water taken on 14th. January 1946.

Appearance Clear and bright.

Colour Normal. Odour Nil.

Reaction pH. On the alkaline side. Acidity as CO_2 0.7
of neutrality: 7.8

Electric conductivity at 20°C 650. Alkalinity as Ca CO_3 29.0

Results expressed in parts per 100,000.

| Ca. | Mg. | Na. | CO_3 | SO_4 | Cl. | NO_3 | SiO_2 | Probable Combinations. |
|---|-----|-----|---------------|---------------|-----|---------------|----------------|-------------------------|
| 5.8 | 2.2 | | 17.4 | 6.3 | 2.7 | A | 1.1 | |
| 5.8 | | | 8.7 | | | | | Calcium Carbonate 14.5 |
| | 2.2 | | 5.4 | | | | | Magnesium Carbonate 7.6 |
| | | 2.5 | 3.3 | | | | | Sodium Carbonate 5.8 |
| | | 3.0 | | 6.3 | | | | Sodium Sulphate 9.3 |
| | | 1.7 | | | 2.7 | | | Sodium Chloride 4.4 |
| | | | | | | | 1.1 | Silica 1.1 |
| Difference | | | | | | | | 0.8 |
| Total solid constituents dried at 180°C | | | | | | | | 43.5 |

| | | | | | |
|--|--------|-----------|----------------------|-----------------|-----|
| Hardness - Total | 23.5 | Temporary | 23.5 | Permanent | 0.0 |
| Free Ammonia | 0.0048 | = | Ammoniacal Nitrogen | 0.0040 | |
| Albuminoid Ammonia | 0.0000 | = | Albuminoid Nitrogen | 0.0000 | |
| Oxygen absorbed in 4 hours at 80°F | | | 0.010 | | |
| Nitrogen in Nitrates | 0.00 | | Nitrogen in Nitrites | Less than 0.001 | |
| Metals Iron | 0.003 | | Other metals | Absent. | |

NOTE: To convert the above parts per 100,000
into grains per gallon multiply by 0.7

"Free chlorine reaction" 0.2 part per million.

BACTERIOLOGICAL RESULTS.

No. of Colonies per c.c. or ml.
On Agar at 37°C in : 1 day.
2 days.
On Agar at 20°C in : 3 days.

Presumptive Coliform Reaction.

Bact. Coli.

Cl. welchii

| | |
|---------|-------------------|
| | 0 |
| | 1 |
| | 1 |
| Present | - Absent 100 c.c. |
| Present | - Absent 100 c.c. |
| Present | - Absent 100 c.c. |

Signed: Gordon Miles B.Sc. F.R.I.C.

THE WEST GLOUCESTERSHIRE WATER COMPANY.
KINGSWOOD, BRISTOL.

S.S. 80

Analysis of sample of California Pumping Station Output Filtered,
Chlorinated and Softened water.
taken on January 21st. 1946.

Appearance. Clear and bright.

Colour Normal. Odour Nil.

Reaction pH Neutral: 7.3 Acidity as CO₂ 2.5

Electric conductivity at 20°C 950. Alkalinity as Ca CO₃ 34.5

Results expressed in parts per 100,000.

| Ca. | Mg. | Na. | CO ₃ | SO ₄ | Cl. | NO ₃ | SiO ₂ | Probable Combination. | |
|---|-----|-----|-----------------|-----------------|-----|-----------------|------------------|-----------------------|------|
| 7.1 | 1.5 | | 20.7 | 13.0 | 6.5 | 0.8 | 1.0 | | |
| 7.1 | | | 10.6 | | | | | Calcium Carbonate | 17.7 |
| | 1.5 | | 3.7 | | | | | Magnesium Carbonate | 5.2 |
| | | 4.9 | 6.4 | | | | | Sodium Carbonate | 11.3 |
| | | 6.2 | | 13.0 | | | | Sodium Sulphate | 19.2 |
| | | 4.2 | | | 6.5 | | | Sodium Chloride | 10.7 |
| | | 0.3 | | | | 0.8 | | Sodium Nitrate | 1.1 |
| | | | | | | | 1.0 | Silica | 1.0 |
| Difference | | | | | | | | | 0.3 |
| Total solid constituents dried at 180°C | | | | | | | | | 66.5 |

Hardness - Total 24.0 Temporary 24.0 Permanent 0.0

Free Ammonia 0.0072 = Ammoniacal Nitrogen -

Albuminoid Ammonia 0.0000 = Albuminoid Nitrogen -

Oxygen absorbed in 4 hours at 80°F 0.0000

Nitrogen in Nitrates 0.18 Nitrogen in Nitrites Absent.

Metals Absent.

NOTE: To convert the above parts per 100,000
into grains per gallon multiply by 0.7

"Free chlorine reaction" 0.05 part per million.

BACTERIOLOGICAL RESULTS.

No. of Colonies per c.c. or ml.

On Agar at 37°C in : 1 day

2 days

On Agar at 20°C in : 3 days

Presumptive Coliform Reaction

Bact. Coli.

Cl. welchii

| | |
|---------|-------------------|
| 0 | |
| 0 | |
| 0 | |
| Present | - Absent 100 c.c. |
| Present | - Absent 100 c.c. |
| Present | - Absent 100 c.c. |

